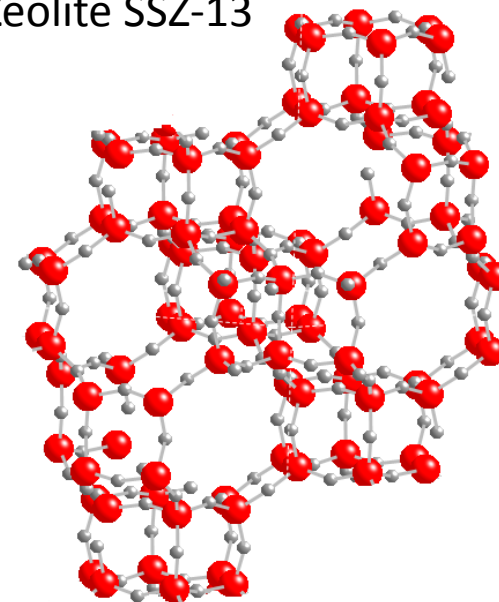


Small Pore Zeolites for the Ammonia Selective Catalytic Reduction of NOx

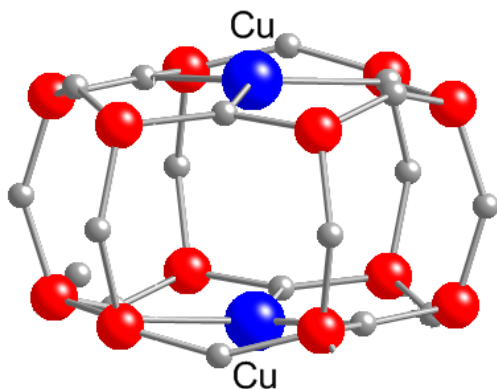
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Cu-SSZ-13 and other 'small-pore' zeolites ($\sim 4 \text{ \AA}$ in diameter) have shown excellent activity and stability for the ammonia selective catalytic reduction of NOx. We aim at establishing the structure of the active site and understanding the structural reasons for the high hydrothermal stability of this zeolite.

Zeolite SSZ-13



Copper coordination to the zeolite framework



Cu-SSZ-13 is unique among other zeolite catalysts in that it exhibits only one well-defined catalytic site and in this sense is the first heterogeneous catalyst to show the same kind of structure-property relations that are observed in enzymes. Other zeolites usually have a number of related but distinct active sites.